



CORROSION GUIDE FOR TERA-GEM III EPOXY AND PHENOL NOVOLAC EPOXY RESINS

CRS III MC: Phenol Novolac Epoxy System resistance to methylene chloride and n-methyl pyrrolidone.

CRS III: Phenol Novolac Epoxy System, which provides superior resistance to many industrial chemicals.

CRS: Epoxy System, which provides excellent protection against a broad range of industrial chemicals at high concentration.

DQ: Epoxy System, which gives low color and excellent color stability with good chemical resistance to a broad range of industrial chemicals.

GUIDE KEY:

R The letter "R" designates that the system is suitable for secondary containment (72 hrs) and/or intermittent splash/spill for the listed chemical at the stated concentration.

NR Not recommended for the listed chemical.

* The listed chemical has not been tested for this system.

NOTE:

The TERA-GEM III Corrosion Systems are suitable for long-term immersion/exposure for many of the listed chemicals. Contact Tera-Lite's technical department for the proper system recommendation. The technical data furnished is true and accurate to the best of our knowledge. However, no guarantee of accuracy is given or implied. We suggest that the user evaluate these recommendations and suggestion in conjunction with their specific applications. Tera-Lite, Inc./Revolan Systems warrants its products to be free from manufacturing defects conforming to their most recommended specifications. In the event of defective materials, Tera-Lite, Inc./Revolan Systems' liability will be limited to the replacement of material or the material value only the sole discretion of Tera-Lite, Inc./Revolan System. We assume no responsibility of the coverage, suitability of application, performance of injuries resulting from use.

CHEMICAL NAME	CRS III MC	CRS III	CRS	DQ
Acetic Acid, 10%	R	R	R	R
Acetic Acid, 25%	R	R	R	*
Acetic Acid, Glacial 100%	R	R	NR	NR
Acetone, 20%	R	R	R	R
Acetone, 50%	R	R	R	NR
Acetone, 100%	R	R	NR	NR
Acryamide, 50%	R	R	R	*
Acrylic Acid, 25%	R	R	R	*
Adipic Acid Solution, All	R	R	R	R
Alcohol, Isopropyl, All	R	R	R	R
Alcohol, Ethyl, All	R	R	R	R
Alcohol, Methyl, All	R	R	R	*
Allyl Chloride, All	R	R	R	*
Aluminum Bromate, All	R	R	R	R
Aluminum Bromide, All	R	R	R	R
Aluminum Chloride, All	R	R	R	*
Aluminum Fluoride, All	R	R	R	*
Aluminum Hydroxide, All	R	R	R	R
Aluminum Iodide, All	R	R	R	R
Aluminum Nitrate, All	R	R	R	R
Aluminum Potassium Chloride, All	R	R	R	R
Aluminum Sulfate, All	R	R	R	R
Alums, All	R	R	R	R
Ammonia - Wet,	R	R	R	R
Ammonium Benzoate, All	R	R	R	R
Ammonium Chloride, All	R	R	R	R
Ammonium Citrate, All	R	R	R	R
Ammonium Fluoride, All	R	R	R	R
Ammonium hydroxide, 30%	R	R	R	R
Ammonium Lauryl Sulfate, 30%	R	R	R	*
Ammonium Molybdate, All	R	R	R	R
Ammonium Nitrate, All	R	R	R	R
Ammonium Oxalate, All	R	R	R	R
Ammonium Persulfate, All	R	R	R	*
Ammonium Phosphate, All	R	R	R	R
Ammonium Silicate, All	R	R	R	R
Ammonium Sulfate, All	R	R	R	R
Ammonium Sulfide, All	R	R	R	R
Amyl Acetate, All	R	R	R	R
Amyl Alcohol, All	R	R	R	R
Amyl Chloride, All	R	R	R	R
Aniline, 100%	R	R	R	R
Aniline Hydrochloride, All	R	R	R	R
Aqua Regia	*	*	*	*
Arsenic Acid, 80%	R	R	R	*
Barium Bromide, All	R	R	R	R
Barium Carbonate, All	R	R	R	R
Barium Chlorate, All	R	R	R	R
Barium Chloride, All	R	R	R	R

CHEMICAL NAME	CRS III MC	CRS III	CRS	DO
Barium Citrate, All	R	R	R	R
Barium Dichromate, All	R	R	R	*
Barium Hydroxide, 50%	R	R	R	*
Barium Nitrate, All	R	R	R	*
Barium Nitrite, All	R	R	R	*
Barium Sulfate, All	R	R	R	R
Barium Sulfide, All	R	R	R	R
Beer, All	R	R	R	R
Benzene, All	R	R	R	*
Benzene Sulfonic Acid, 100%	R	R	R	*
Benzoic Acid, All	R	R	R	R
Benzyl Alcohol, All	R	R	R	*
Beverages-Carbonated, All	R	R	R	R
Black Liquor, All	R	R	R	*
Bleach Solution:				
Calcium Hypochlorite, All	R	R	R	*
Chlorine Dioxide, All	R	R	R	*
Chlorine Water, All	R	R	R	*
Sodium Hypochlorite, 15%	R	R	R	*
Blood, All	R	R	R	R
Borax, All	R	R	R	R
Boric Acid, All	R	R	R	R
Bromine Water, 20%	R	R	R	*
Butanol, All	R	R	R	R
Butyl Acetate, All	R	R	R	*
Butyl Benzoate, All	R	R	R	*
Butyl Carbitol, All	R	R	R	*
Butyl Cellosolve, All	R	R	R	*
Butyric Acid, All	R	R	R	*
Cadmium Chloride, All	R	R	R	R
Calcium Bisulfite, All	R	R	R	R
Calcium Bromide, All	R	R	R	R
Calcium Carbonate, All	R	R	R	R
Calcium Chlorate, All	R	R	R	*
Calcium Chloride, All	R	R	R	R
Calcium Citrate, All	R	R	R	*
Calcium Hydroxide, All	R	R	R	*
Calcium Hypochlorite, All	R	R	R	*
Calcium Nitrate, All	R	R	R	R
Calcium Sulfate, All	R	R	R	R
Calcium Sulfite, All	R	R	R	R
Carbon Disulfide, All	R	R	R	*
Carbon Tetrachloride	R	R	R	R
Castor Oil, All	R	R	R	R
Chlorine, Dry or Wet, All	R	R	R	*
Chlorine, Water-All	R	R	R	*
Chloroacetic Acid, 70%	R	R	R	*
Chlorobenzene, All	R	R	NR	NR
Chromated Copper Arsenate, 50%	R	R	R	*

CHEMICAL NAME	CRS III MC	CRS III	CRS	DO
Chromic Plating Solution	R	R	R	*
Chromic Acid, 10%	R	R	R	*
Chrome Acid, 66%	R	R	NR	*
Chromium Sulfate, All	R	R	R	R
Chromous Sulfate, All	R	R	R	R
Citric Acid, All	R	R	R	R
Cobalt Chloride, All	R	R	R	*
Cobalt Citrate, All	R	R	R	*
Cobalt Naphthenate, All	R	R	R	*
Cobalt Nitrate, All	R	R	R	*
Cobalt Octoate, All	R	R	R	*
Coconut Oil, All	R	R	R	R
Copper Acetate, All	R	R	R	R
Copper Chloride, All	R	R	R	R
Copper Cyanide, All	R	R	R	R
Copper Nitrate, All	R	R	R	R
Copper Sulfate, All	R	R	R	R
Corn Oil, All	R	R	R	R
Corn Starch, All	R	R	R	R
Corn Sugar, All	R	R	R	R
Cottonseed Oil, All	R	R	R	R
Creosol, All	R	R	R	*
Crude Oil, Sour or Sweet, All	R	R	R	R
Cyclohexane, 100%	R	R	R	*
Deionized Water, 100%	R	R	R	R
Detergents, Organic & Sulfonated	R	R	R	R
Diacetone Alcohol, All	R	R	R	*
Diallylphthalate, All	R	R	R	*
Dibutyl Carbitol	*	*	*	*
Dichlorobenzene, 100%	R	R	R	*
Dichloroethane, All	R	R	*	*
Dichloroethylene, All	R	R	R	*
Dichloromethane, All (methylenechloride)	R	NR	NR	NR
Diesel Fuel, All	R	R	R	R
Diethanolamine, 100%	R	R	R	*
Diethyl Sulfate, All	R	R	R	*
Diethylene Glycol, All	R	R	R	R
Dimethyl Formamide, All	R	NR	NR	*
Dioctyl Phthalate, All	R	R	R	R
Embalming Fluid, All	R	R	R	*
Ethanol Amine, All	R	R	R	*
Ethyl Alcohol, All	R	R	R	R
Ethyl Acetate, All	R	R	R	*
ethyl Acrylate, All	R	R	R	*
Ethyl Benzene, All	R	R	R	*
Ethylene Glycol, All	R	R	R	*
Ethylene Glycol n-Butyl Ether, All	R	R	R	*
Ethylenediaminetetra Acetic Acid	R	R	R	*
Eucalyptus Oil, All	R	R	R	R

CHEMICAL NAME	CRS III MC	CRS III	CRS	DO
Fat, All	R	R	R	R
Fatty Acid, All	R	R	R	R
Ferric Chloride, All	R	R	R	R
Ferric Nitrate, All	R	R	R	*
Ferric Sulfate, All	R	R	R	R
Ferrous Chloride, All	R	R	R	R
Ferrous Nitrate, All	R	R	R	*
Ferrous Sulfate, All	R	R	R	*
Fluoboric Acid, All	R	R	RR	*
Fluosilicic Acid, 35%	R	R	R	*
Formaldehyde, All	R	R	R	*
Formic Acid, 50%	R	R	*	*
Freon Products, All	R	R	R	*
Gasohol, All	R	R	R	NR
Gasoline Refined, All	R	R	R	NR
Gasoline, Aviation, All	R	R	R	NR
Glucose, All	R	R	R	R
Glycerine, All	R	R	R	R
Glycol Ether PM, All	R	R	R	R
Glycol Ether PM Acetate, All	R	R	R	R
Green Liquid, All (Pulp Mill)	R	R	R	*
Heavy Aromatic Naphtha, All	R	R	R	*
n-Heptane, All	R	R	R	R
Hexane, All	R	R	R	*
Hydraulic Fluid, All	R	R	R	R
Hydriodic Acid, All	R	R	R	*
Hydrobromic Acid, 62%	R	R	R	NR
Hydrochloric Acid, 37%	R	R	R	NR
Hydrocyanic, All	R	R	R	NR
Hydrofluoric Acid, 47%	R	R	NR	NR
Hydrofluosilic Acid, 35%	R	R	*	*
Hydrogen Peroxide 30%	R	R	R	NR
Hydrogen Sulfide, All	R	R	*	*
Hydroxyacetic Acid, All	R	R	*	*
Hypochlorous Acid, 20%	R	R	*	*
Iodine Crystals, All	R	R	R	R
Isobutyl Alcohol, All	R	R	R	R
Isopropyl Alcohol, All	R	R	R	R
Jet Fuel JP-4, All	R	R	R	*
Jojoba Oil, All	R	R	R	*
Kerosene, All	R	R	R	*
Lactic Acid, 40%	R	R	R	*
Lactic Acid, 70%	R	R	NR	*
Lard, All	R	R	R	R
Latex, All	R	R	R	R
Lauric Acid, All	R	R	R	R
Lauryl Alcohol, All	R	R	R	*
Lauryl Chloride, All	R	R	R	*
Lead Acetate, All	R	R	R	*

CHEMICAL NAME	CRS III MC	CRS III	CRS	DO
Lead Chloride, All	R	R	R	*
Lead Nitrate, All	R	R	R	*
Levulinic Acid, All	R	R	R	*
Linseed Oil, All	R	R	R	R
Lithium Bromide, All	R	R	R	R
Lithium Chloride, All	R	R	R	R
Lithium Nitrate, All	R	R	R	R
Lithium Sulfate, All	R	R	R	R
Magnesium Bicarbonate, All	R	R	R	R
Magnesium Bisulfite, All	R	R	R	R
Magnesium Carbonate, All	R	R	R	R
Magnesium Chloride, All	R	R	R	R
Magnesium Hydroxide, All	R	R	R	R
Magnesium Nitrate, All	R	R	R	R
Magnesium Phosphate, All	R	R	R	R
Magnesium Sulfate, All	R	R	R	R
Maleic Acid, All	R	R	R	*
Manganese Chloride, All	R	R	R	*
Manganese Sulfate, All	R	R	R	*
Mercurous Chloride, All	R	R	R	*
Mercury, All	R	R	R	*
Methacrylic Acid, All	R	R	R	*
Methyl Alcohol, All	R	R	R	NR
Methyl Ethyl Ketone, All	R	R	*	*
Methyl Isobutyl Carbitol, All	R	R	R	*
Methyl Isobutyl Ketone, All	R	R	R	*
Methyl Methacrylate, All	R	R	R	*
Methylene Chloride, All	R	NR	NR	*
Methyl Pyrrolidone,-n All	R	NR	NR	*
Mineral Oils, All	R	R	R	R
Molasses, All	R	R	R	R
Molybdenum Disulfide, All	R	R	R	R
Monochlorobenzene, All	R	R	*	*
Monoethanolamine, All	R	R	*	*
Naphtha, All	R	R	R	*
Naphthalene, All	R	R	R	*
Nickel Chloride, All	R	R	R	R
Nickel Nitrate, All	R	R	R	R
Nickel Sulfate, All	R	R	R	R
Nitric Acid, 30%	R	R	R	NR
Nitric Acid, 40%	R	R	NR	NR
Nitrobenzene, All	R	R	R	*
Oakite Rust Stripper, All	R	R	R	*
Oil, Sour and Sweet Crude, All	R	R	R	R
Oleic Acid, All	R	R	R	*
Olive Oil, All	R	R	R	*
Oxalic Acid, 15%	R	R	R	*
Palm Oil, All	R	R	R	R
Peanut Oil, All	R	R	R	R

CHEMICAL NAME	CRS III MC	CRS III	CRS	DO
Perchlorethylene, All	R	R	R	R
Phenol, 100%	R	R	*	*
Phenol Sulfonic Acid, All	R	R	R	*
Phosphoric Acid, 80%	R	R	R	*
Pine Oil, All	R	R	R	*
Piperazine Monohydrochloride, All	R	R	R	*
Pickling Acids, Sulfuric & HCl	R	R	R	*
Plating Solution, All	R	R	R	*
Polyphosphoric Acid, 115%	R	R	R	*
Polyvinyl Alcohol, All	R	R	R	*
Potassium Aluminum Sulfate, All	R	R	R	R
Potassium Bicarbonate, All	R	R	R	*
Potassium Borate, All	R	R	R	*
Potassium Bromide, All	R	R	R	*
Potassium Carbonate, All	R	R	R	R
Potassium Chloride, All	R	R	R	R
Potassium Dichromate, All	R	R	R	*
Potassium Ferricyanide, All	R	R	R	*
Potassium Ferrocyanide, All	R	R	R	*
Potassium Fluoride, All	R	R	R	*
Potassium Hydroxide, All	R	R	R	*
Potassium Hypochlorite, All	R	R	R	*
Potassium Iodide, All	R	R	R	R
Potassium Nitrate, All	R	R	R	R
Potassium Oxalate, All	R	R	R	*
Potassium Permanganate, All	R	R	R	*
Potassium Persulfate, All	R	R	R	*
Potassium Pyrophosphate, All	R	R	R	*
Potassium Silicate, All	R	R	R	R
Potassium Sulfate, All	R	R	R	R
Propionic Acid, All	R	R	*	*
Propylene Glycol, All	R	R	R	R
Pyridine, All	R	*	*	*
Rayon Spin Bath, All	R	R	R	*
Salicylic Acid,	R	R	R	*
Salt Brine, All	R	R	R	R
Sea Water, All	R	R	R	R
Selenious Acid, All	R	R	R	R
Silicic Acid, All	R	R	R	*
Silicon Fluoride, All	R	R	R	R
Silver Nitrate, All	R	R	R	R
Skydrol, All	R	R	R	R
Sodium				
Acetate, All	R	R	R	R
Sodium Alkyd Aryl Sulfonates, All	R	R	R	R
Sodium Aluminate, All	R	R	R	R
Sodium Benzoate, All	R	R	R	R
Sodium Bicarbonate, All	R	R	R	R
Sodium Bifluoride, All	R	R	R	*

CHEMICAL NAME	CRS III MC	CRS III	CRS	DO
Sodium Bisulfate, All	R	R	R	R
Sodium Bisulfite, All	R	R	R	R
Sodium Borate, All	R	R	R	R
Sodium Bromide, All	R	R	R	R
Sodium Carbonate, All	R	R	R	*
Sodium Chlorate, 50%	R	R	R	*
Sodium Chloride, All	R	R	R	R
Sodium Chlorite, 50%	R	R	R	*
Sodium Chromate, 50%	R	R	R	*
Sodium Cyanide, All	R	R	R	*
Sodium Dichromate, All	R	R	R	*
Sodium Diphosphate, All	R	R	R	*
Sodium Dodecylbenzenesulfonate,	R	R	R	*
Sodium Ferricyanide, All	R	R	R	*
Sodium Ferrocyanide, All	R	R	R	*
Sodium Fluoride, All	R	R	R	*
Sodium Fluorosilicate, All	R	R	R	*
Sodium Hexametaphosphate, All	R	R	R	*
Sodium Hydrosulfide, All	R	R	R	*
Sodium Hydroxide, 50%	R	R	R	R
Sodium Hypochlorite, 15%	R	R	R	R
Sodium Lauryl Sulfate, All	R	R	R	*
Sodium Monophosphate, All	R	R	R	*
Sodium Nitrate, All	R	R	R	R
Sodium Nitrite, All	R	R	R	R
Sodium Oxalate, All	R	R	R	*
Sodium Persulfate, All	R	R	R	*
Sodium Phosphate, All	R	R	R	*
Sodium Silicate, All	R	R	R	*
Sodium Sulfate, All	R	R	R	R
Sodium Sulfite, All	R	R	R	*
Sodium Tetraborate, All	R	R	R	R
Sodium Thiosulfate, All	R	R	R	R
Sodium Tripolyphosphate, All	R	R	R	*
Sodium Xylene Sulfonate, All	R	R	R	*
Sorbitol, All	R	R	R	*
Soybean Oil,	R	R	R	*
Stannic Chloride, All	R	R	R	*
Stannous Chloride, All	R	R	R	*
Stearic Acid, All	R	R	R	*
Styene, All	R	R	R	*
Sugar/Sucrose, All	R	R	R	R
Sulfamic Acid, All	R	R	R	R
Sulfite/Sulfate Liquors Pulp Mill	R	R	R	*
Sulfur, All	R	R	R	*
Sulfuric Acid, 98%	R	R	NR	NR
Sulfuric Acid, 70%	R	R	R	NR
Sulfuric Acid, 50%	R	R	R	R
Tall Oil, All	R	R	R	R

CHEMICAL NAME	CRS III MC	CRS III	CRS	DO
Tannic Acid, All	R	R	R	*
Tartaric Acid, All	R	R	R	R
Tetrachloroethane, All	R	R	R	*
Tetrachloroethylene, All	R	R	R	*
Tetrahydrofuran, 25%	R	R	*	*
Titanium Chloride, All	R	R	R	*
Titanium Fluoride, All	R	R	R	*
Titanium Nitrate, All	R	R	R	*
Titanium Tetrachloride, All	R	R	R	*
Toluene, All	R	R	R	*
Toluene Sulfonic Acid, All	R	R	R	*
1,1,1 Trichloroethane, All	R	R	R	*
Trichloroethylene, All	R	R	R	*
Tricresyl Phosphate, All	R	R	R	*
Triethanolamine, All	R	R	R	*
Triethylene Glycol, All	R	R	R	*
Tripropylene Glycol, All	R	R	R	*
Trisodium Phosphate, All	R	R	R	*
Tung Oil, All	R	R	R	R
Turpentine, All	R	R	R	*
Urea, All	R	R	R	R
Urine, All	R	R	R	R
Vinegar, All	R	R	R	R
Vinyl Acetate, All	R	R	R	*
Water, Distilled	R	R	R	R
Water, Deionized	R	R	R	R
Water, Salt/Sea	R	R	R	R
Whiskey, All	R	R	R	R
Wine, All	R	R	R	R
Xylene, All	R	R	R	*
Zinc Chloride, All	R	R	R	R
Zinc Cyanide, (Plating)	R	R	R	*
Zinc Fluoroborate, (Plating)	R	R	R	*
Zinc Nitrate, All	R	R	R	R
Zinc Sulfate, All	R	R	R	R
AGRICULTURAL CHEMICALS				
Ammonium Phosphate, All	R	R	R	R
Ammonium Sulfate, All	R	R	R	R
DACAMINE ** Weed Killer	R	R	R	*
DACTHAL ** Herbicide	R	R	R	*
8-8-8 Fertilizer	R	R	R	*
Fungicides, Organic	R	R	R	*
Insecticide Emulsions,	R	R	R	*
Phosphate Salts, All	R	R	R	*
Phosphoric Acid, All	R	R	R	*
Sulfur, Wettable, Fungicide	R	R	R	*
Super Phosphoric Acid	R	R	R	*
Urea	R	R	R	*

CHEMICAL NAME	CRS III MC	CRS III	CRS	DO
Urea-Ammonium-Nitrate Fertilizer	R	R	R	R
VIVO-ZYNE, Weed Killer Emulsions	R	R	R	R
BLEACHES				
Calcium Hypochlorite, All	R	R	R	*
Chlorine Dioxide, All	R	R	R	*
Chlorine Water, All	R	R	R	*
Hydrogen Peroxide 30%	R	R	R	*
Hydrosulfite, All	R	R	R	*
Sodium Chlorite, All	R	R	R	*
Sodium Hypochlorite, 15%	R	R	R	*
TEXTILE CARE PRODUCTS				
Detergents, Organic	R	R	R	R
Detergents, Sulfated	R	R	R	R
Detergents, Sulfonated	R	R	R	*
Perchlorethylene	R	R	R	*
Sodium Silicates	R	R	R	*
Sodium Tetraborate	R	R	R	R
Sodium Tripolyphosphate	R	R	R	*
Sodium Xylene Sulfonate	R	R	R	*
Trisodium Phosphate	R	R	R	*
PERTROLEUM PRODUCTS				
Crude Oil, Sour/Sweet	R	R	R	*
Fuel, Oil	R	R	R	*
Fuel, Diesel	R	R	R	*
Fuel, Jet JP-4	R	R	R	*
Fuel, Racing	R	R	R	*
Gasoline, Aviation	R	R	R	*
Gasoline, Ethyl	R	R	R	*
n-Heptane	R	R	R	*
Hydraulic Fluid	R	R	R	*
Kerosene	R	R	R	*
Skydrol	R	R	R	*
TRANSFORMER OILS				
Mineral Oil	R	R	R	*
PLATING BATH				
Acid--Sulfate/Sulfuric Type:				
Chrome, Decorative	R	R	R	*
Chrome, "DURAMIR" TM	R	R	R	*
Chrome, "ECNO-CHROME" TM	R	R	R	*
Copper Sulfate	R	R	R	R
Nickel Sulfamate	R	R	R	*
Nickel Sulfonate	R	R	R	*
Nickel Sulfate, Low pH	R	R	R	*
Nickel Sulfate, High pH	R	R	R	*
Acid--Fluoborate/Fluosilicate				
Chrome Fluosilicate	R	R	R	*

CHEMICAL NAME	CRS III MC	CRS III	CRS	DO
Copper Fluoborate	R	R	R	*
Lead Fluoborate	R	R	R	*
Nickel Fluoborate	R	R	R	*
Tin Fluoborate	R	R	R	*
Zinc Fluoborate	R	R	R	*
Alkaline - Cyanide Type:				
Cadmium Cyanide	R	R	R	*
Copper, Rochelle Cyanide	R	R	R	*
Copper, High Speed Cyanide	R	R	R	*
Gold Cyanide	R	R	R	*
Silver Cyanide	R	R	R	*
Zinc Cyanide	R	R	R	*
MISCELLANEOUS SOLUTIONS				
Pickling Liquids - Acid	R	R	R	*
Pickling Liquids - Alkaline	R	R	R	*
Photographic Solutions	R	R	R	*